

# Annual Report of Water Use Activities in the South Platte Natural Resources District

For the 2012 Basin-Wide Meeting

Report Years: 2011 Meeting Date: June 21, 2012

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# ANNUAL REPORT OF WATER USE ACTIVITIES IN THE SOUTH PLATTE NATURAL RESOURCES DISTRICT

TO MEET THE REQUIREMENTS OF THE INTEGRATED MANAGEMENT PLAN FOR THE 2011 BASIN-WIDE MEETING

#### I. GENERAL SUMMARY

A. The following is a compilation of records, statistics and historic conditions of water use which have been tracked by the South Platte Natural Resources District (SPNRD) for 2011. All information supplied for this summary is available within a GIS database, complete with the locations and attributes. This report has been compiled for the June 21, 2012 Basin-wide meeting.

#### II. INTRODUCTION

This report is intended to satisfy the SPNRD tracking and reporting requirements as A. described by the Monitoring and Studies section of the SPNRD Integrated Management Plan (IMP). The SPNRD will be responsible for tracking the following activities within the District on an annual basis: (1) certification of ground water uses and any changes to these certifications; (2) approved transfers, including all of the information provided with the application and used in the approval of the transfer; (3) any flow meter data collected; (4) any water well construction permits issued; (5) any other permits issued by the SPNRD; (6) any conditions associated with any permits issued; (7) information gathered through the municipal and non-municipal industrial accounting process; (8) any variances issued, including: the purpose, the location, any required offset, the length of time for which the variance is applicable and the reasoning behind approval of the variance; (9) any retirements of irrigated acres or other activities by the SPNRD for the purpose of returning to a fully appropriated condition; (10) information related to any water banking transactions; and (11) offsets provided for depletions resulting from increased consumptive use related to the above listed items.

The items tracked and reported will subsequently be used by SPNRD and the Department of Natural Resources (DNR) to measure the success of the controls, incentive measures and other action items contained in the IMP at meeting the goals and objectives of the IMP. Two evaluation processes for measuring success are described in the IMP. The first is an annual evaluation that will forecast the balance of depletions and accretions from the report year through 2048. The second evaluation occurs periodically and will be more robust, including updating and running ground water models. These evaluation processes will be carried out by the SPNRD and the DNR after the annual basin-wide meeting. The tracking, reporting, and evaluation processes are described in more detail in the Monitoring and Studies section of the IMP. In addition to the evaluation processes, the information that is tracked and reported will also be used by the State to help meet requirements of the Platte River Recovery Implementation Program (Program).

#### III. CERTIFIED ACRES

A. The SPNRD began certifying ground water irrigated acres in October 2002 and ended the certification process in the first half of 2006. The SPNRD certified irrigated acres are based on historically irrigated acres proven by Farm Service Agency (FSA) maps, tax records or other appropriate documentation. The SPNRD approved one variance in 2011 to certify 5.6 acres (see section VII. A. of this report for details about this variance). These acres had historically been irrigated, but were missed at the initial certification.

The SPNRD has two types of certified acres; active and inactive. Inactive acres are any certified acres that belong to wells that are inactive and do not have a flow meter installed and do not receive an allocation. These unused wells are enrolled in a SPNRD program called Temporary Deferment. Active acres are all acres that are being irrigated or have a flow meter installed and therefore receive an allocation. Detailed data regarding the number of certified irrigated acres can be found in Appendix A. Map 1 provides a look at the state designated areas in the SPNRD.

#### IV. APPROVED TRANSFERS

A. For 2011, the District approved eight transfers. There were five transfers that involved converting gravity or side roll irrigated tract to a pivot irrigated tract. These transfers resulted in no net increase in consumptive use or irrigated acres. Two transfers that the SPNRD Board approved all dealt with industrial transfer permits. DNR requested the SPNRD's consultation on those two permits to transfer ground water to an adjoining state (Colorado or Wyoming). The eighth approved transfer involved the movement of gravity irrigated acres from 3 separate tracts to a new location where a pivot will be installed. See the table below for more information on specific transfers.

NRD PERMIT #	TOWNSHIP	RANGE	SECTION	ACRES
	13	55	6	None
TR-IND-Yung	14	55	32	
TR-IND-Marquesnsen	14	59	14	None
PVT-20-Bricher	15	54	7	3.3
PVT-21-Halligan	15	57	32	2.3
PVT-019-Leef				
(TR-10-Leef referenced				
in 2010 report)	13	44	24	115.0
PVT-022-Lindhorst	13	42	11	50.5
PVT-023-St. George	14	49	36	9.5
	16	55	20	40 total
	15	55	7	(10.6)
	16	55	17	(11.6)
TR-AC-Young-11*	16	55	20	(17.8)

<sup>\*</sup> The acres listed in parenthesis are the certified irrigated acres which were moved to the new location, which equal 40 total certified acres at the new location.

#### V. WELL CONSTRUCTION PERMITS

- A. Supplemental Ground Water Wells
  - 1. The SPNRD issued no supplemental ground water wells.
- B. Supplemental Surface Water Wells
  - 1. The SPNRD issued no supplemental surface water well permits.
- C. Replacement Wells
  - 1. The SPNRD issued one replacement well permit, but it was not drilled and the permit expired.
- D. Temporary Wells
  - 1. The SPNRD issued no temporary well permits.
- E. De-Watering Wells
  - 1. The SPNRD issued no de-watering well permits.
- F. Other Permits
  - 1. The SPNRD issued no other well permits.
- VI. VARIANCES
- A. The SPNRD considers any request that is contrary to existing rules or regulations of the SPNRD or DNR as a variance. The SPNRD has a Variance Advisory Group that reviews and makes recommendations to the SPNRD Board of Directors on all variances requested. The Board reviews variances on a case-by-case basis and, as the elected governing body; the Board makes the final determination.

In 2011 there were two approved variances. One approved variance to add certified irrigated acres that resulted in the addition of 5.6 certified irrigated acres. These acres where missed in the initial certification, so this was a correction to the certified irrigated acres previously reported. The second variance was a modification of a previous industrial variance from 2010. This variance was to previously allow an industrial well which pumps over 50 gallons per minute to be modified with a restrictor valve which would keep it below 50 gallons per minute. However, the owner of the well changed his mind and asked for a variance to install a flow meter, go forward three years, and then establish a baseline. See the table below for more information.

NRD PERMIT #	TOWNSHIP	RANGE	SECTION	ACRES
	17	49	35	
AC-11-Walker	16	49	4	5.6
IND-11-Ray	12	45	4	

#### VII. MUNICIPAL AND INDUSTRIAL ACCOUNTING

A. The SPNRD began implementing the Industrial Accounting portion of the IMP in early 2010. Industrial wells were identified through the DNR registered well database and had to pump greater than 50 gallons per minute. The SPNRD decided that in order for an industrial user to obtain a baseline certification they must have pumping history for every year during the five-year period from August 1, 2001 through July 31, 2006. Unless a variance is granted, a user that has not met this five-year pumping history criterion will be given a non-baseline certification, and that user will be responsible for offsetting the water use. The SPNRD allows industrial users who have a non-baseline certification to offset new or expanded uses through transfers including irrigation allocation(s), certified irrigated acres or the District's water bank. Currently, the SPNRD has twenty-one (21) non-baseline certifications. Four of the twenty-one now have or could have an active industrial use and all water pumped will be offset by an existing irrigation allocation as agreed upon by the user and the SPNRD Board of Directors. See the following table for a breakdown of non-baseline industrial uses.

Well Reg. #	Legal	Use	Offset By
G-021823	Sec. 12 T16N R57W	Oil Fields	To Be Determined (TBD)
G-022051	Sec. 24 T13N R56W	Oil Fields	TBD
G-014546	Sec. 34 T14N R53W	Oil Fields	TBD
G-022281	Sec. 11 T14N R53W	Oil Fields	TBD
G-134511	Sec. 22 T17N R52W	Oil Fields	TBD
A-002770	Sec. 28 T15N R54W	Oil Fields	TBD
G-022347	Sec. 23 T13N R57W	Oil Fields	TBD
G-022048	Sec. 34 T17N R51W	Oil Fields	TBD
G-023351	Sec. 27 T14N R50W	Oil Fields	TBD
A-004712	Sec. 11 T14N R59W	Oil Fields	Irrigation allocation on
			tract 14N59W110001
G-022050	Sec. 19 T14N R55W	Oil Fields	TBD
G-022049	Sec. 19 T14N R55W		
G-074242	Sec. 1 T12N R44W	Sand & Gravel	Irrigation allocation on
		Mining	tract 12N43W210001
A-004408	Sec. 28 T15N R55W	Road	Irrigation allocation on
		Construction	tract 15N55W280004
G-054269	Sec. 12 T13N R56W	TBD	TBD

G-019421	Sec. 21 T14N R55W	Oil Fields	TBD
G-019973	Sec. 21 T14N R55W		
G-019423	Sec. 21 T14N R55W		
G-154988	Sec. 6 T12N R43W	Sand & Gravel	TBD
G-154989	Sec. 6 T12N R43W	mining	
G-154990	Sec. 6 T12N R43W		
G-021178	Sec. 23 T17N R52W	Oil Fields	TBD
G-039899	Sec. 5 T15N R52W	Oil Fields	TBD
G-021179	Sec. 23 T17N R52W	Oil Fields	TBD
G-021621	Sec. 23 T17N R52W		
G-146042	Sec. 13 T15N R56W	Sand & Gravel	Irrigation allocation on
		mining	tract 15N56W230005
G-030434	Sec. 2 T12N R55W	Oil Fields	TBD
G-026066	Sec. 2 T12N R55W		

In 2010, the SPNRD granted variances from the baseline certification process. These variances were made for established industries in the SPNRD who were unable to document water usage back to August 1, 2001. Seven of these industries exist within the SPNRD and they were required to install a flow meter and allowed to go forward three years from the time of installation. After three years a baseline will be issued based on the highest amount pumped during the three year period. This baseline will then be used as the amount pumped from August 1, 2001 until the time of establishment. After the baseline becomes established regular accounting will start from that point forward. The following is a table of the active industrial variances.

Well Reg. #	Legal	Use	Baseline Gallons	2011 Gallons	Variance End Date
G-131190 G-083186	Sec. 14 T13N R45W Sec. 14 T13N R45W	Feedlot	TBD	TBD	February 2014
G-123698	Sec. 4 T12N R45W	Feedlot	TBD	TBD	November 2014
G-077801	Sec. 29 T14N R55W	Hazardous Waste Incinerator	TBD	33,525,000	January 2014
G-003169	Sec. 22 T13N R45W	Соор	TBD	TBD	February 2014
G-054015	Sec. 6 T15N R57W	Oil Fields	TBD	TBD	March 2014
G-002327	Sec. 2 T12N R42W	Aerial Spraying	TBD	387,220	November 2012
G-101853	Sec. 23 T16N R50W	Соор	TBD	TBD	December 2013

Seven industries now have established baselines. These industries had records of water sales, tax receipts, flow meter readings, electrical power records, etc. which could be documented back to August 1, 2001 and used to establish the approved baseline. The baseline was determined by looking at the amount of water consumed by the industry between August 1, 2001 and July 31, 2006. The highest one year period (August 1<sup>st</sup> to July 31<sup>st</sup>) during this time was then used as that industry's baseline. All of these industries now currently have flow meters installed and those are read on a monthly basis. None of the previously mentioned industries discharge any water and all pumping

is looked at as one hundred (100) percent consumptive use. The SPNRD tracks both industrial and municipal use on an August 1<sup>st</sup> to July 31<sup>st</sup> timeframe. See the following table for a list of existing industries and how their baselines compare with current pumping.

Well Reg. #	Legal	Use	Baseline Gallons	Baseline Year	2011 Gallons*
G-157945	Sec. 5 T13N R50W	Livestock	299,315,624	2005-	149,996,915
G-157946	Sec. 5 T13N R50W			2006	
G-031351	Sec. 5 T13N R50W				
G-091299	Sec. 30 T16N R55W	Sand &	22,154,542	2001-	0
		gravel		2002	
		mine			
G-013034	Sec. 19 T15N R55W	Oil fields	88,605	2004-	0
				2005	
G-051806	Sec. 32 T14N R55W	Oil fields,	2,203,750	2003-	4,403,703***
G-058832	Sec. 6 T13N R55W	roads,		2004	
		wind			
		turbines			
G-117269	Sec. 5 T14N R52W	Water	655,763	2002-	314,569
		well		2003	
		drilling			
G-059572	Sec. 15 T13N R51W	Oil fields	2,333,334	2005-	298,200
G-119599	Sec. 11 T14N R51W			2006	
G-041367**	Sec. 23 T15N R56W	Sand &	5,650,134	2005-	755,432
		gravel		2006	
		mine			

<sup>\* 2011</sup> Gallons are calculated from the industrial water year of August 1, 2010 through July 31, 2011.

B. The SPNRD has certified baselines for all ten municipal water systems in the District. Municipal baselines include information from all wells the municipality uses that pump over 50 gallons per minute. The Chappell, Potter, and Sidney golf courses are all figured into their municipal baselines. Currently, the Kimball golf course does not appear in either the municipal or industrial accounting; however, they have been contacted and will be added to next year's report. Baselines were figured with the best known data at the time.

Sidney, Lodgepole, Chappell, and Kimball discharge some or all of their waste water back into Lodgepole Creek. The rest of the remaining municipalities' waste water is held in full retention lagoons.

<sup>\*\*</sup> Well G-041367 received a variance to establish a partial baseline because pumping did not occur during all five baseline years. If the baseline amount of 5,650,134 gallons is exceeded, all offsets will be automatically deducted from certified irrigated tract #15N56W230005. See 2/5 variance request in the 2010 report.

<sup>\*\*\*</sup> These wells are in the fully appropriated area of the District and are still below their five year baseline.

Similar to industrial baselines, municipal baselines were calculated by documenting usage between August 1, 2001 and July 31, 2006. The highest one year period (August 1<sup>st</sup> to July 31<sup>st</sup>) during this time was then used as that municipality's baseline. The following table shows the municipal baselines, per capita use, and current year usage.

Municipality	DNR Transfer Permit Gallons	Baseline Gallons	Baseline Year	Baseline Per Capita Use* gallons/ person/ day	2011 Gallons**	2011 Per Capita Use*** gallons/ person/day
Big Springs	164,574,899	154,986,748	2002-2003	891	53,280,000	365
Bushnell	N/A	13,092,375	2001-2002	221	6,539,128	144
Chappell	N/A	116,968,411	2001-2002	326	119,627,636****	353
Dalton	N/A	68,634,300	2001-2002	566	33,749,900	294
Dix	N/A	72,023,100	2001-2002	739	31,984,700	344
Gurley	N/A	45,332,050	2001-2002	545	30,512,417	391
Kimball	N/A	243,050,000	2001-2002	260	156,023,260	171
Lodgepole	N/A	53,443,494,	2001-2002	421	32,471,140	280
Potter	N/A	135,421,817	2001-2002	951	88,721,837	721
Sidney	1,300,000,000	633,042,003	2001-2002	276	462,984,714	188

<sup>\*</sup> Based on 2000 Census population numbers

#### VII. FLOW METER DATA

A. The SPNRD has had flow meters installed in the entire District since 2009. All certified irrigated acres located in the Lodgepole Creek Valley have had an allocation in place beginning in 2007. The remainder of the District (Tablelands and South Platte Valley) has had an allocation in place since 2009. In 2009 the SPNRD Board of Directors voted to lower allocations for the Lodgepole Creek Valley Subareas from 54" and 48" to 48" and 42" respectively for the allocation period. See Map 2 for a breakdown of allocations subareas, amounts and the number of flow meters for the District through 2009. Appendix E provides a detailed look at water usage for the three years the Lodgepole Creek subareas have been under allocation and the 2009 water usage for the Tablelands and South Platte Valley subareas.

The current allocations will be valid through 2012. Beginning in 2013 all subareas will be on the same three year timeframe. In March of 2012 the Board of Director's voted to lower the allocation in the Tablelands subarea from 20" per year to 14" per year; in the South Platte Valley subarea from 20" per year to 18" per year; Oliver Reservoir to Buffalo Bend subarea from 16" per year to 14" per year, see Map 3 for a complete description of the upcoming allocations.

<sup>\*\*</sup> Based on August 1, 2010 through July 31, 2011 water year

<sup>\*\*\*</sup> Based on the 2010 census population numbers

<sup>\*\*\*\*</sup> These wells are in the fully appropriated area of the District and are still below their five year baseline.

#### IX. RETIRED ACRES AND OTHER STREAM FLOW ACCRETION ACTIVITIES

A. The SPNRD will implement measures within the first ten (10) year increment of the IMP to offset an average annual depletion rate of one hundred fifty (150) acre-feet to the North Platte River, four hundred (400) acre-feet to the South Platte River, and one hundred fifty (150) acre-feet to Lodgepole Creek for the period 2043-2048. These rates are the current best estimates and are subject to change based upon new data and information.

Through 2011, the SPNRD retired or decertified 1,377 acres equating to an estimated 548 acre-feet of water benefitting the Lodgepole Creek. These acres are all located in the overappropriated Lodgepole Creek Valley. See Appendix F for a complete breakdown of all retirement activities.

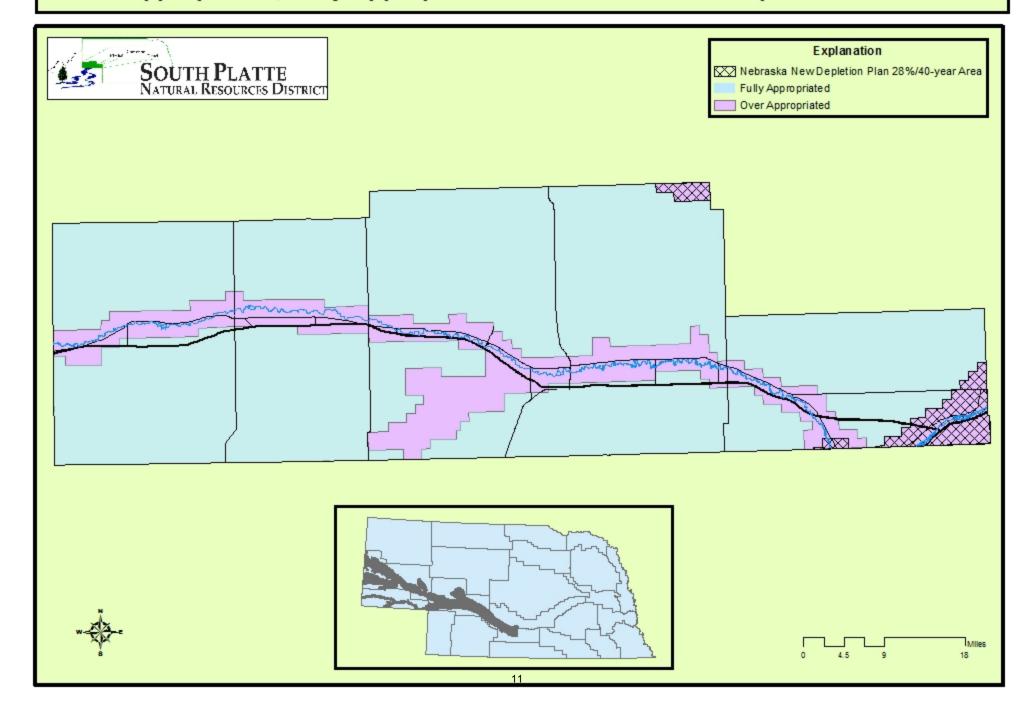
#### X. OTHER ACTIVITIES

- A. The SPNRD has also begun work on the Lodgepole Creek Flow Evaluation study. This study will reexamine the SPNRD's depletions identified in the IMP to the South Platte River, Lodgepole Creek and North Platte River, the possible augmentation potential of Lodgepole Creek, historic literature review and a stream routing modeling package. This project is partially funded through the Interrelated Water Management Plan Program Fund and DNR.
- B. The SPNRD and North Platte Natural Resources District (NPNRD) began work on a regional ground water model, Western Water Use Model (WWUM), for the two Districts in 2009. This regional model will build upon the modeling work that was completed during SPNRD and NPNRD's time spent participating in COHYST. The SPNRD and NPNRD share a ground water modeler, Thad Kuntz, P.G. This project is partially funded through the Interrelated Water Management Plan Program Fund.
- C. The SPNRD and NPNRD recently finalized a historic acres study, which looked at changes in irrigated and dryland acres and the crops planted throughout both Districts from 1953 through 2010. The resulting datasets will be inputted in the WWUM.

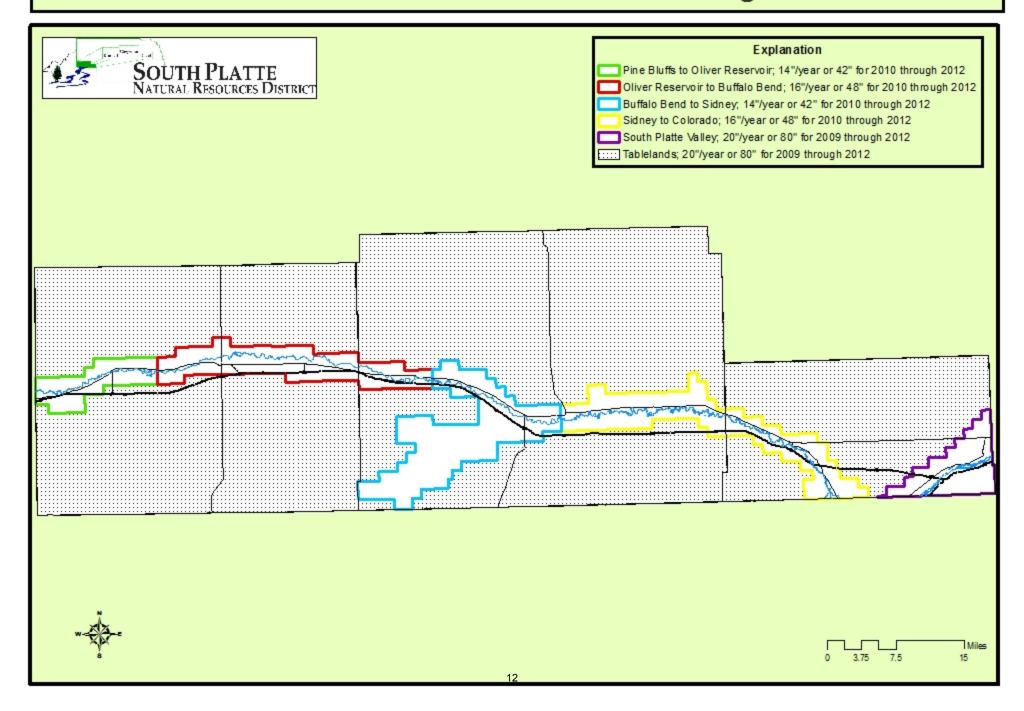
#### XI. GROUND WATER LEVELS

A. Tracking and reporting of ground water levels is not required in the IMP. The SPNRD measures 150 observation wells in the spring and fall annually as well as taking water levels on six recorder wells monthly. The SPNRD received a grant from the Nebraska Environmental Trust in 2010 to drill 39 new monitoring wells to improve the distribution of observation wells and improve our understanding of the District with inadequate coverage.

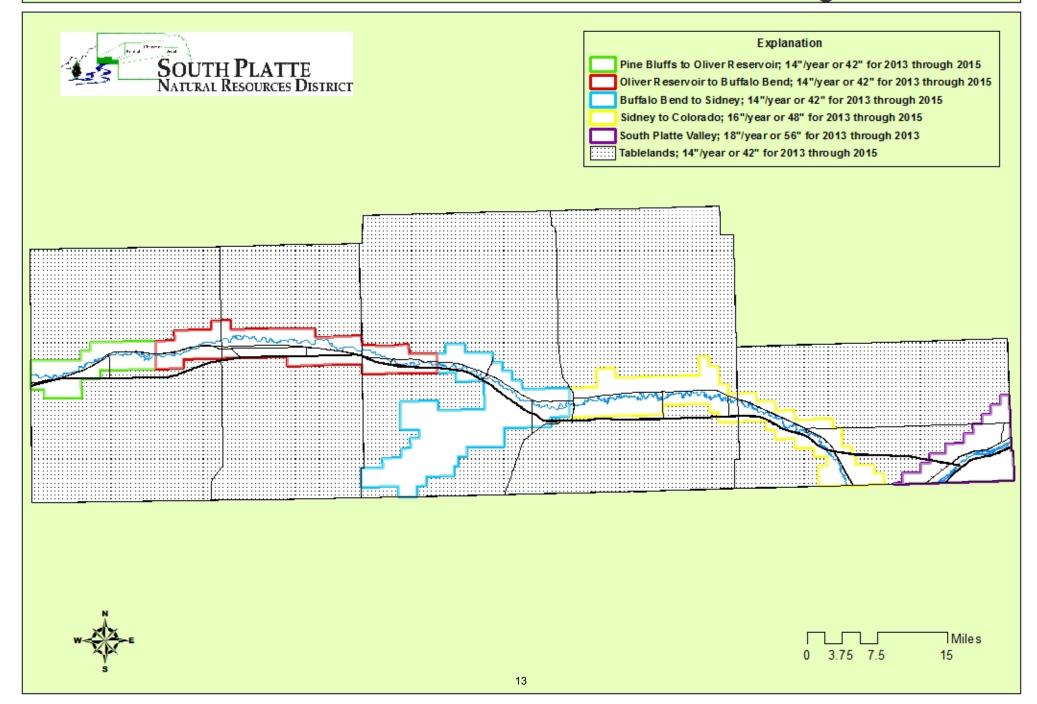
## Overappropriated, Fully Appropriated and Nebraska New Depletion Plan Areas



# **Allocation Subareas and Allocations Through 2012**



# Allocation Subareas and Allocations for 2013 through 2015



## Appendix A

### SPNRD Certified Irrigated Acres

	Kimball	Cheyenne	Deuel	Total
Active Overappropriated	16,226	18,743	14,647	49,616
Inactive Overappropriated	783	1,257	485	2,525
Active Fully-Appropriated	25,520	43,629	9,465	78,614
Inactive Fully-Appropriated	476	1,180	458	2,244
Total Certified	43,005	64,809	25,055	132,869
Total Cert. Acres in Nebraska				
New Depletion Plan 28%/40-				
year Area	0	56	10,577	10,633

# Appendix B South Platte Natural Resources District Water Usage Report

Districtwide Water Usage Analysis Period: 2009 - 2011

	2009	2010	2011	Total
Weighted Avg. Inches Pumped*	8.39	9.99	9.78	28.16
High	110.86	49.99	30.92	
Median	7.38	9.52	9.20	
Total Acre-Feet Pumped	81,925.32	98,665.21	97,217.53	277,808.06
Total Acres-Inches Pumped	983,103.82	1,183,982.50	1,166,610.39	3,333,696.72
Total Acres-Inches Pumped ÷ By Total Acres	7.67	9.24	9.10	26.01
Total Number of Inactive Certified Irrigated Acres***	4,723.6	4,723.6	4,638.5	
Total Number of Active Certified Irrigated Acres	128,172.2	128,143.9	128,229.1	
Total Number of Certified Irrigated Acres	132,895.8	132,867.5	132,867.6	

#### Range of Inches Used:

Scale	2009	2010	2011
0 - 4	25%	19%	17%
4.01 - 8	29%	21%	23%
8.01 - 12	27%	30%	32%
12.01 - 16	14%	20%	17%
16.01 - 20	3%	7%	7%
20+	2%	3%	3%

Scale	2009 - 2011
0 - 12	18%
12.01 - 24	25%
24.01 - 36	35%
36.01 - 48	17%
48.01 - 60	4%
60+	1%

#### Crop Water Usage\*\*:

Crop	2009 Avg. In.	2009 Acres	2010 Avg. In.	2010 Acres	2011 Avg. In.	2011 Acres
Alfalfa	9.4	12,855.4	10.6	13,219.8	10.8	9,466.8
Beans	6.4	8,327.7	9.0	9,275.8	7.8	7,977.4
Corn	10.0	49,576.3	11.5	52,979.7	10.6	64,951.1
Fallow	0.0	42.8	0.0	1,702.5	0.0	934.6
Hay	6.0	4,019.8	6.1	3,255.2	6.6	3,615.4
Other	2.2	447.6	7.3	141.7	1.5	394.7
Pasture	7.0	6,198.5	6.1	5,815.4	7.7	4,793.2
Potatoes	9.6	129.3	0.0	0.0	14.0	120.5
Small Grains	4.1	34,428.2	5.3	29,582.6	5.4	26,182.7
Sugar Beets	11.7	6,980.2	15.7	6,059.7	13.6	6,737.7
Sunflowers	4.4	5,085.2	6.8	6,111.4	5.2	3,054.9
Unknown	0.1	81.4	0.0	0.0	0.0	0.0
All Crops	7.7	128,172.2	9.2	128,143.9	9.1	128,229.1

<sup>\*</sup> Calculated by removing the high use tract and the tracts that did not use any water, then calculated the usage of all tracts individually and averaged those numbers.

<sup>\*\*</sup> Crop Water Usage is based off of the number of acres per crop, which are based on field observations taken at the time flow meters are read. Crop Water Usage could be subject to change as more accurate crop-acre information becomes available.

<sup>\*\*\*</sup>Inactive Certified Irrigated Acres are acres enrolled in Temporary Deferment or incentive programs that offer incentives to discontinue irrigation use on a temporary basis.

# Appendix C Retired Acres and Other Stream Flow Accretion Activities SPNRD Water Acquisitions and Water Banking Activities Through 2011

31 Was water Acquisitions and water banking Activities 111 ough 2011												
Landowner	Decertified Acres	Stream Depletion (%)	Acre Feet Accrued	Township	Range	Section	Date Retired	County	Subarea	Appropriation		
Terrell Wiekhorst	43.1	18	4.6	14	52	5	9/6/2007	Cheyenne	ORBB	OA		
Cliff Farms Inc.	50	32	12.2	14	52	3	9/17/2007	Cheyenne	ORBB	OA		
Robert & Connie Runge	75.2	7	2.7	13	51	10	9/27/2007	Cheyenne	SIDCO	OA		
Marleen E. Evans Et al	237.8	57	118.9	13	50	4	10/22/2007	Cheyenne	SIDCO	OA		
Marleen E. Evans Et al	23.8	71	26.7	14	50	33	10/22/2007	Cheyenne	BBSID	OA		
Fornstrom Farms LLC	109.9	23	14.1	14	59	12	11/1/2007	Kimball	PBOR	OA		
Dale Dedic	29.8	25	6.2	14	52	4	12/4/2007	Cheyenne	ORBB	OA		
Elizabeth Burback	18.3	25	3.8	15	55	20	12/5/2007	Kimball	ORBB	OA		
Peetz Land & Cattle Co	22.9	31	4.7	14	49	35	3/14/2008	Cheyenne	SIDCO	OA		
B5 Farms LLC	10.1	78	4.9	12	45	13	4/9/2008	Deuel	SIDCO	OA		
Paul & Frances Fornander	13.3	72	14.5	13	45	22	7/1/2008	Deuel	SIDCO	OA		
Harvey Jung	8.7	7	1	14	53	2	7/10/2008	Cheyenne	ORBB	OA		
Robert Kurz	271.5	57	88.3	13	50	4	10/23/2008	Cheyenne	SIDCO	OA		
Venture Development Group Inc.	66	66	32.4*	14	49	32	7/14/2009	Cheyenne	BBSID	OA		
Alan Adamson	62.6	70	63	15	57	31	9/22/2009	Kimball	PBOR	OA		
Sharon A, James C. & Donna Johnson	5.6	10	0.44	15	53	34	7/1/2010	Kimball	ORBB	OA		
Raymond Kuehn	83.2	73.5	49.2	14	51	12	7/1/2010	Cheyenne	BBSID	OA		
Raymond Kuehn	42.3	68	23.1	14	51	13	7/1/2010	Cheyenne	BBSID	OA		
Scott & Susan Lockwood	43.9	92.5	32	15	57	36	9/1/2010	Kimball	PBOR	OA		
Don & Janelle Frerichs	59.6	75	30.8	14	48	27	9/22/2011	Cheyenne	SIDCO	OA		
Barton Terman	99	10	14.5	14	52	34	12/28/2011	Cheyenne	BBSID	OA		

<sup>\*</sup>Accrual to SPNRD due to municipal growth, the SPNRD Board of Directors will decide what percentage of Acre-Feet the City of Sidney will receive.

Total Acre Feet Accrued = 548

Total Number of Acres Decertified = 1,377

Average Stream Depletion = 46%

Average \$/AF Accrued (Federal dollars plus SPNRD dollars): \$3,069

Average \$/Acre Retired (Federal dollars plus SPNRD dollars): \$609